The 180-Day Threshold: When Water Supplies Become Critically Low

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We recently blogged about the factors that H.B. 4/Proposition 6 would require the Texas Water Development Board (TWDB) to consider when allocating financial support from the new $2 billion water infrastructure bank.

One of these factors is "whether there is an emergency need for the project, taking into consideration: (A) whether the applicant is included at the time of the application on the list maintained by the commission of local public water systems that have a water supply that will last less than 180 days without additional rainfall." H.B. 4 (2013) § 2.01, 15.437(d)(4).

The jurisdictions on the 180-day list will presumably not see much immediate benefit from infrastructure bank assistance, since planning, permitting and building infrastructure takes time, as does issuing the bonds to finance it. Yet a shortage that severe is likely to evidence a chronic problem, not a once-off fluke. Financing infrastructure now could make the next shortage more bearable.

The irony in all of this is that the 180-day list may not be complete. During the current drought, some jurisdictions have waited until the very last minute to notify Texas Commission on Environmental Quality (TCEQ) of their predicament.

H.B. 252, passed earlier this year, aims to remedy the current system by amending the Water Code to require each retail water utility – and each entity from which it obtains wholesale water – to notify the TCEQ when "reasonably certain" that water will run out in less than 180 days.

Nearly Exhausted Water Supplies

The drought has caused some towns to run out of water and others to come perilously close. In January 2012, falling levels in Lake Travis so depleted the groundwater well serving Spicewood Beach that the small retirement community became the first Texas town to go completely dry. Locals began trucking in water. A year later, the well was still low, and the trucks were still coming.

Meanwhile, Robert Lee, a small town between San Angelo and Abilene, outright banned washing cars and watering lawns when its sole water source – Lake Spence – dwindled to one percent capacity. The *San Antonio Express-News* lamented that the "drought threatened the West Texas town's existence."

As a lifeline, Robert Lee built a pipe to a neighboring and comparatively water-rich town, with funding assistance from the TWDB, the Texas Department of Agriculture, and the United States Department of Agriculture Rural Development. But laying pipe requires lead time, as do similar last-ditch efforts like drilling emergency wells. Robert Lee, for instance, began constructing its pipeline months before Lake Spence went dry. Even before that, it was conducting preparatory work.

Despite the importance of planning, the communities at-risk have not consistently informed the TCEQ – which has the ultimate statewide authority for overseeing surface water resources and managing drought – of their predicaments. In the case of Spicewood Beach, for example, the community was only days away from running out of water before the Lower Colorado River Authority (LCRA) reported the shortage to the TCEQ. Consequently, the TCEQ did not have enough time to come up with an alternative plan, and the town had to tuck in water while it and the agency devised a long-term solution.

H.B. 252 and Mandatory Reporting

Until H.B. 252, TCEQ could not require public water systems to report that their supplies were critically low. (No statute expressly prohibited TCEQ from mandating this information. However, the House Research Organization (HRO) concluded that the TCEQ did not have the authority to mandate the information because no statute clearly authorized it to do so.) As a result, the agency itself had to monitor water supplies – a process that was less efficient than coordination would have been.

H.B. 252 thus attempts to prevent communication gaps and to provide TCEQ with access to better information by ensuring that the agency receives updates from both retail utilities (like Spicewood Beach) and wholesalers (like LCRA). In addition to improving coordination with TCEQ, the bill forces retail utilities and wholesalers to begin reckoning with potential supply shortfalls while still comparatively manageable.

Small West Texas Towns at Greatest Risk

Although planning can help communities buffer the effects of adverse hydrology, it can impose its own costs in the form of engineering reports, legal contracts and even infrastructure outlays. Not surprisingly, communities with greater resources – financial, administrative, or political – can pay these costs more easily.

As the drought has dragged on, the effects of the drought have compounded and the number of cities at risk has increased. In November of 2011 – the single-worst year of drought on record – only 11 communities were at risk of running out water within 143 days. By April 2013, however, 24 communities were within 180 days of running out. By July 31, 2013, 11 were at risk of running out in between 90 and 180 days; 15 were at risk in between 45 and 90 days; and 10 ten were at risk of running out in less than 40 days.

These communities, while confronted with a bleak and dramatic challenge, represent a tiny percentage of Texas water utilities. As of July 31, 2013, 1,059 public water systems had reported to TCEQ that they had instituted some sort of mandatory or event voluntary usage restriction. Of these, more than a 1,000 had more than more than a 180 day supply of water remaining.

Almost all of the at-risk communities were located west of Interstate 35. And almost all were small, with a median population of 708. Communities of that size may be reliant on a single water source, like Spicewood Beach and Robert Lee. They may have few if any full-time engineers or hydrologists on staff. They may not have the funds to import water or to purchase options for dry-year water. They may rely more heavily on TCEQ's resources and expertise than large cities do.

Indeed, the only large urban utility at risk is the Gulf Coast Water Authority, which serves a population of almost 300,000 in Galveston, Fort Bend, and Brazoria countries, reported its shortage to TCEQ just ten days after the passage of H.B. 252. The utility blamed low rainfall and reduced flows in the Brazos River.

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